

IN THE U.S. PATENT AND TRADEMARK OFFICE

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For: Fiber product treating agent composition

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The Commissioner of Patents

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DECLARATION UNDER 37 CFR 1.132

I, Motoko FUJII, hereby declare as follows:

I am one of the co-inventors of the invention as described and claimed in the above identified patent application.

I have studied JP-A 2000-110077, cited in the application, and have carried out additional tests, procedures and results of which are described below.

Example 2-1 and Comparative Example 2-1 and 2-2

Three compositions, Example 2-1 and Comparative Example 2-1 and 2-2, were prepared by emulsifying and dispersing components in amounts thereof as shown in Table 6, hereto attached.

Components used in Example 2-1 and Comparative Example 2-1 and 2-2 are below described.

The obtained compositions were tested, as below shown,

in view of formation of wrinkles and tenseness in treated test shirts. Test results are shown in Table 6.

Example 2-1 falls in scope within the instantly pending claim 1 of the instant patent application, containing components (a), (b), (c) and (d).

Comparative Example 2-1 and 2-2 correspond to Example 1 and 2 of JP-A 2000-110077.

Components used:

• Component (A), corresponding to component (b) of the application  
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The following A-1 and A-2 were obtained as a modified silicone of component (A).

A-1: a modified silicone having formula (I) of JP-A 2000-110077 wherein R is -CH<sub>3</sub>, R<sub>1</sub> is -C<sub>3</sub>H<sub>6</sub> and R<sub>2</sub> is -H, L, M and N represent 0, 3 and 75, respectively, and the weight ratio of POE chain in group X to the whole molecule is 20% (POE/POP=100/0).

A-2: a modified silicone having formula (I) of JP-A 2000-110077 wherein R is -CH<sub>3</sub>, R<sub>1</sub> is -C<sub>3</sub>H<sub>6</sub>, R<sub>2</sub> is -H, L, M and N represent 0, 10 and 115, respectively, and the weight ratio of POE chain in X group of the whole molecule is 32 % (POE/POP=50/50).

POE/POP, parenthesized, shows a molar ratio of polyalkylene group units, POE shows polyoxyethylene group and POP shows polyoxypropylene group.

Ref. (b) -2: TSF4707 (an amino-modified silicone, manufactured by GE Toshiba silicone Co., Ltd., having a viscosity of 10000 mm<sup>2</sup>/s and an amino equivalent of 7000.)

• Component (B), corresponding to component (c) of the application  
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B-1: Compound obtained by quaternizing an amine compound having formula (II) of JP-A 2000-110077 with methyl chloride, in which R3 and R4 are a C18 hydrocarbon group and R5 is methyl group.

B-2: Compound obtained by quaternizing an amine compound having formula (II) of JP-A 2000-110077 with methyl chloride, in which R3 is a straight C18 hydrocarbon group and R4 and R5 are methyl group.

B-5: hydrochlorate of an amine compound having formula (II) of JP-A 2000-110077, in which R3 and R4 are a C18 hydrocarbon group and R5 is methyl group.

Ref. (c)-2: Quartamine 86W, manufactured by Kao corporation, stearyltrimethylammonium chloride.

• Component (C), corresponding to component (a) of the  
application Serial No.10/567 327:

the following C-1 and C-2 were obtained by adding an alkali agent (potassiumhydroxide) to isotridecyl alcohol, dehydrating the resultant in nitrogen atmosphere, adding ethylene oxide and neutralizing the resultant with an acid.

C-1: ethylene oxide adduct to isotridecyl alcohol, 40 moles added on the average.

C-2: ethylene oxide adduct to isotridecyl alcohol, 60 moles added on the average.

Ref. (a)-1: a nonionic surfactant prepared by adding ethylene oxide to stearyl alcohol, in an amount of 140 moles per 1 mol of the alcohol on the average. (HLB:19.2, melting point:60.9°C)

- Component (D), corresponding to component (f) of the application Serial No.10/567 327:

D-1: Ethanol

D-2: Ethylene glycol

- Component (E)

E-1: Monoethanol amine hydrochloride

E-2: Diethanol amine hydrochloride

- Other components

Ref. (d1)-1: Poise C-60H, manufactured by Kao Corporation, cationic cellulose having a molecular weight of about 600,000.

Ref. (e)-2: a nonionic surfactant prepared by adding ethylene oxide to Kalcol 40, manufactured by Kao corporation, in an amount of 20 moles per 1 mol of the alcohol on the average.

Ref. (f)-1: Diethylene glycol monobuthyl ether

Ref. (f)-2: Ethanol

Ref. (f)-3: Propylene glycol

Ref. (g)-2: Lactic acid

Ref. (g)-3: Hydrochloric acid in which an effective component of HCl is 35%.

Ref. Antibacterial agent: Proxel IB, manufactured by Avecia KK, aqueous 20% solution.

Ref. Dye : Violet 201

#### <Treatment method>

A commercially available Dangaree shirt, BIG JEMUSON, No.S6010, made of 100 % of cotton, was washed with a commercially available detergent, Top, manufactured by Lion Corporation, in

an automatic washing machine, HITACHI, NW-7FY, then rinsed. At the third time of rinsing, the finishing agent composition shown in Table 6 was added in an amount of 20 to 30L of water to carry out finishing treatment of the clothes. The clothes were hung on hangers and was naturally dried at 20°C, 40% RH. The clothes were evaluated in view of wrinkles and tenseness.

<Method of evaluation of wrinkles>

The clothes that were treated by each treating agent composition and dried for 12 hours by hanging were evaluated with five panelists with reference to a control fiber product which was treated only with the detergent without any finishing agent and was dried as above. The panelists marked them with points based on the following standard. The average marks were obtained. Points are:

- ◎: the average is more than 1.0 and 2.0 or less,
- : the average is more than 0 and 1.0 or less,
- △: the average is 0,
- ×: the average is -1.0 or more and less than 0 and
- ××: the average is -2.0 or more and less than -1.0.

• wrinkles

More reduced in wrinkles than the control: +2 points

A little more reduced in wrinkles than the control: +1 points

The same as control: 0 points

The control is slightly more reduced in wrinkles : +1 points

The control is more reduced in wrinkles: -2 points

<Method of evaluation of feel to touch>

A fiber product was treated by each of the treating agent

compositions, dried by hanging for 12 hours and humidity-conditioned for 24 hours at 25°C at 65% RH in a thermohydrostat. It was evaluated for tenseness with five panelists with reference to a control fiber product which was treated only with the detergent without any finishing agent and was likewise humidity-conditioned at 25°C at 65% RH in a thermohygrostate. The panelists marked them with points based on the following standard. The averages of points were obtained. Points are:

- ◎ : the average is more than 1.0 and 2.0 or less,
- : the average is more than 0 and 1.0 or less,
- △ : the average is 0,
- × : the average is -1.0 or more and less than 0 and
- ×× : the average is -2.0 or more and less than -1.0.

• Tenseness

- Tenser than the control: +2 points
- Slightly tenser than the control: +1 point
- The same as control: 0 point
- The control is slightly tenser: -1 point
- The control is tenser: -2 points

Remarks

It is noted from the test results of Table 6 that:

- 1) In Comparative Examples, suppressing of wrinkles and improved tenseness were not observed;
- 2) In Comparative Examples falling outside contents of components (a), (b), (c) and (d), suppressing of wrinkles

and improved tenseness were not observed; and

- 3) The composition of Example of the present invention exhibits both suppressing of wrinkles and tenseness.

I hereby declare that all statements made herein of any own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United State Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: 01/30/2008 Motoko Fujii

Attached hereto: Table 6 .

Table 6

tested compositions	test No.	JP-A 2000-110077	JP-A 2000-110077	USSN 10/56732. the invention
		Comparative Example 1	Comparative Example 2	Example 2-1
Component (A)	A-1	2		
	A-2		2	
	Ref.(b)-2			6
Component (B)	B-1	7.5	7.5	
	B-2	0.5	0.5	
	B-5	0.1	0.1	
	Ref. (c)-2			1
Component (C)	C-1	1		
	C-2		1	
	Ref. (a)-1			8
Component (D)	D-1,Ref. (f)-2	2	5	0.5
	D-2	5	2	
Component (E)	E-1		0.3	
	E-2	0.1		
	Ref. (d1)-1			0.05
	Ref. (e)-2			1
	Ref. (f)-1			2
	Ref. (f)-3			5
	Ref. (g)-2			0.10
	Ref. (g)-3, hydrochloric acid	Amount to prepare pH 3	Amount to prepare pH 3	0.28
	Calcium chloride	0.3	0.3	
	Ref.Antibacterial agent			0.10
	Benzoic acid	0.07	0.07	
	Kason CG	0.01	0.01	
	Chelating agent			0.015
	Perfume	0.6	0.6	0.30
	Dye(Acid red 138)	0.0006	0.0006	
	Dye(Acid yellow 141)	0.0025	0.0025	
	Ref. Dye			0.003
	Water	Balance	Balance	Balance
Results of the evaluation	Wrinkles	× (-0.4)	△(0)	◎(1.6)
	Tenseness	× (-0.8)	× (-0.6)	◎(1.4)